

Table 1.

| Date of carrying out analysis | Place where analysis was carried out | Components being determined | Method of analysis | Result of CCA mg/l | |
|-------------------------------|--------------------------------------|---|--|----------------------------------|--------------------------------------|
| | | | | before barrier | after barrier |
| 09.12.99 | Waste waters (Marinsky Park) | Floating petroleum products | IR | 0.12 | 0.010 |
| 09.12.99 | Nischenka River | Floating petroleum products | IR | 0.34 | 0.035 |
| 09.12.99 | Chura River | Floating petroleum products | IR | 0.4 | 0.041 |
| 09.12.99 | Tarakanovka River | Floating petroleum products | IR | 0.78 | 0.050 |
| 11.01.00 | Chura River | Floating petroleum products | IR | 2.7 | 0.18 |
| 11.01.00 | Waste waters (Butovo) | Floating petroleum products | IR | 5.4 | 0.96 |
| 25.02.00 | Waste waters OAO "Neftprodukty" | Phenols Petroleum products Benzopyrene Hydroquinone Phenolcarboxylic acid | chromat. IR chromat. chromat. chromat. | 0.11 86.6 0.8 2.5 63 | <0.01 0.05 <0.005 0.5 11 |

Table 2.

| No. | Name of compound | Weight fraction of component in samples, (mg/l) | |
|-----|--------------------------------|---|------------------------|
| | | Before purification | After 1st purification |
| 1 | Caproic acid | 351 | 191 |
| 2 | Tetrahydrothiophen | 2.1 | 1.7 |
| 3 | isothiazole | 10.9 | 5.0 |
| 4 | 2,3-Dimethyl - 1,4 - hexadiene | 0.8 | 0.2 |
| 5 | Isovaleric acid | 5.1 | 1.4 |
| 6 | Valeric acid | 74.9 | 39.6 |
| 7 | Enanthic acid | 112 | 82 |
| 8 | Caprylic acid + Benzoic acid | Σ 55.5 | Σ 43.8 |
| 9 | 2-Ethylenehexanoic acid | 5.2 | 0 |
| 10 | β-Propylacrylic acid | 2.9 | 0 |
| 11 | Phenylacetic acid | 16.3 | 9.6 |
| 12 | Phenobarbital metabolite | 3.2 | 0 |
| 13 | 1-Methyl phenyl cyclopropane | 3.0 | 0 |
| 14 | Cyclohexanacetic acid | 3.2 | 2.6 |
| 15 | Terephthalic anhydride | 20.6 | 6.8 |
| 16 | Phenol | 49.3 | 14.1 |
| 17 | Hydrocinnamic acid | 14.1 | 0.3 |
| 18 | Caprylic acid | 9.2 | 7.8 |
| 19 | 2,3-Dimethylquinoxaline | 5.3 | 1.5 |
| 20 | N,N-Dimethylformamide | 42.6 | 14.9 |
| 21 | Cyclopropyl benzene | 3.8 | 0.4 |
| 22 | α-Phenylbenzyl alcohol | 3.8 | 0 |
| 23 | Cyclohexanol | 294 | 203 |
| 24 | Bi | 0.043 | 0.028 |
| 25 | Ni | 0.96 | 0.36 |
| 26 | Al | 0.61 | 0.38 |
| 27 | Na | 450 | 380 |
| 28 | Cr | 2.4 | 0.55 |
| 29 | Ca | 42.4 | 33.0 |
| 30 | Co | 0.052 | 0.012 |
| 31 | Re | 2.4 | 0.46 |
| 32 | Hg | 0.00066 | 0.00042 |
| 33 | Phosphate-ion | 25.0 | 5.8 |
| 34 | Nitrate-ion | 0.11 | <0.1 |
| 35 | As | 0.018 | 0.012 |
| 36 | Sb | 0.01 | <0.005 |

Table 3

| Components being determined | Initial water ('Ramenskoe city water supply line) | Result of analysis (CCA), mg/l | |
|-----------------------------|---|---------------------------------|--------------------------------------|
| | | After filter "Barrier" (U.S.A.) | After filter of carbonaceous mixture |
| Chromaticity, degree | 28 | 23 | 4 |
| Suspended substances | 79 | 22 | 3 |
| Turbidity, EMF | 117 | 32 | 2 |
| Iron, general | 8.75 | 1.87 | 0.01 |
| Ammonium nitrogen | 0.52 | 0.18 | 0 |
| Sulfides | 0.008 | 0.004 | 0.002 |
| Fluorides | 1.03 | 0.95 | 0.87 |
| Phosphates | 0.14 | 0.12 | 0.08 |

Table 4

| Components being determined | PDK | Well Orekho-Zuevo city | | Well Rasskazovka village | | Water line Ramenskoe city | |
|-----------------------------|---------|------------------------|--------------------|--------------------------|--------------------|---------------------------|--------------------|
| | | Initial water, mg/l | After filter, mg/l | Initial water, mg/l | After filter, mg/l | Initial water, mg/l | After filter, mg/l |
| Hardness, general | 6-8 | 4.68 | 4.00 | 5.6 | 5.4 | 5.58 | 5.28 |
| Nitrates | 45 | 1.1 | 0.8 | 21 | 15.8 | 2.5 | 2.0 |
| Sulfates | 500 | 1.5 | 0 | 56 | 44 | 30 | 20 |
| Sulfides | 0.003 | 0.001 | 0 | 0.004 | 0.001 | 0.008 | 0.002 |
| Ammonium nitrogen | 2.5 | 0 | 0 | 2.7 | 0.48 | 4.4 | 0.83 |
| Chromaticity, degrees | 20 | 8 | 1.5 | 10 | 1.8 | 28 | 4.0 |
| Turbidity, EMF | 2.6 | 0.6 | 0.02 | 1.25 | 0.06 | 117 | 2.0 |
| Suspended substances | 15 | 1.0 | 0.1 | 10 | 1.0 | 79 | 3.0 |
| Oxidizability, perm. | 5.0 | 1.2 | 0.5 | 3.2 | 1.0 | 3.4 | 2.0 |
| Fluorides | 1.5 | 0.2 | 0 | 0.29 | 0.02 | 1.03 | 0.87 |
| Phosphates | 3.5 | 0 | 0 | 0.80 | 0.31 | 0.14 | 0.08 |
| Manganese | 0.1 | 0.03 | 0.01 | 0 | 0 | 0.07 | 0.012 |
| Iron, general | 0.3 | 0.7 | 0 | 5.21 | 0.01 | 8.75 | 0.01 |
| Iron org. (humates) | - | 0 | 0 | 0.28 | 0 | 1.36 | 0.03 |
| Copper | 1.0 | 0 | 0 | 0.01 | 0 | 0.04 | 0 |
| Aluminum | 0.5 | 0 | 0 | 0.03 | 0 | 2.3 | 0.48 |
| Lead | 0.03 | 0 | 0 | 0 | 0 | 0.011 | 0.007 |
| Zinc | 5.0 | 0.17 | 0.05 | 0 | 0 | 0 | 0 |
| Chlorine, resid. free. | 0.3-0.5 | 0.06 | 0 | 0 | 0 | 3.00 | 0.03 |
| Mineralization | 1000 | 210 | 170 | 340 | 250 | 350 | 260 |
| Chloride | 350 | 2.9 | 2.7 | 17.5 | 16.6 | 6.8 | 6.5 |
| Molybdenum | 0.25 | 0 | 0 | 0 | 0 | 3.5 | 0.7 |